

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1912.

DISTRICT No. 3, OHIO VALLEY.

PROF. FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

The unseasonably warm weather which set in the latter part of August continued during practically the entire first half of September. The first 10 days of the month were remarkably hot and oppressive, the average temperature of which ranks among the highest for any decade in September on record in the Ohio Valley. Also it was not only one of the warmest long periods of the summer, but at many places the temperature registered at one time or another the highest experienced during the entire summer. Maximum temperatures were 90° or over practically every day, while at a few places they were 100° and over on several days. The last four or five days of the month were unseasonably cold over the greater portion of the district, with frosts and freezing temperatures reported over the more northerly sections and the elevated regions of the Appalachians. The frosts occasioned little damage, however, and the month as a whole was remarkably favorable, there being as a rule ample rainfall, while the warm weather during the first half of the month was especially advantageous for ripening and maturing the fall crops which had been delayed in planting and maturing on account of the cold, wet weather of the spring and early summer. Heavy rains over western Pennsylvania and the bordering sections of West Virginia and Ohio about the 1st-2d caused considerable damage, otherwise the month, except for occasional local damage from thunderstorms, was remarkably free from any stress of weather.

High-pressure areas largely dominated, there being but three barometric depressions which in their passage eastward materially affected the weather conditions over the district. These occurred about the 15th, 17th-18th, and the 20th-21st.

The following table summarizes the chief features of meteorological interest for the several sections of the district.

Portions of States included in the Ohio River Basin.	Temperature.				Precipitation.						
	Average.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest monthly.	Least monthly.	Greatest in 24 hours.	Average number of days.	Average snowfall.
New York.....	63.1	+3.8	91	29	4.69	+1.87	5.23	3.91	1.92	13	0
Pennsylvania.....	66.3	+2.5	95	29	5.20	+2.49	11.43	2.47	3.04	12	0
Maryland.....	63.8	+2.7	89	36	6.15	+3.66	7.10	5.54	3.55	11	0
West Virginia.....	68.7	+2.1	98	31	3.67	+0.80	6.87	1.00	2.72	8	0
Ohio.....	67.7	+1.6	99	29	3.04	+0.57	5.91	1.06	3.50	8	0
Indiana.....	68.6	+1.3	101	29	3.37	+0.14	5.79	1.35	3.96	7	0
Illinois.....	69.4	+0.6	101	30	3.18	+0.10	5.64	1.26	3.44	7	0
Kentucky.....	71.0	+0.5	103	33	2.80	+0.22	4.95	1.20	2.51	7	0
Tennessee.....	73.1	+2.7	100	37	3.48	+0.33	6.85	1.70	4.31	6	0
Alabama.....	74.2	+1.4	98	46	3.54	+0.28	4.58	2.34	3.00	6	0
Georgia.....	.....	91	46	.....	.....	.....	1.49	12	.....	.....	0
North Carolina.....	68.1	+4.0	95	34	5.07	+1.25	8.61	3.00	4.67	12	0
Virginia.....	65.5	+1.2	91	27	5.16	+1.93	7.87	3.37	3.70	8	0

TEMPERATURE.

Temperature averaged above normal in nearly all parts of the district, the excess ranging from +1° to +5°. During the first half of the month the mean daily temperatures over the district ranged from 5° to 14° above normal, except that about the 12th-13th they were slightly below normal over the north central portion. Over the more southerly portions of the district the temperature was above normal during practically the entire month except for three or four days near the close. There were two marked cool periods, viz, 18th-20th, when mean temperatures were 3° to 9° below normal with minimum temperatures in the 40's; and the 26th-30th, when minimum temperatures registered in the 30's and 40's and the means were 5° to 12° below normal. The highest temperature registered in the district was 103°, at Earlington, Ky., on the 10th, and the lowest 27°, at Lebanon, Va., on the 20th. Freezing temperature was reached near the close of the month at a number of places in all the States north of the Ohio River and in West Virginia and western Pennsylvania.

A remarkable record of high temperature for September occurred during the first 10 days over the immediate lower Ohio Valley, especially in western Kentucky, where at several stations the daily maximum temperatures registered during that period, ranged from 97° to 103°. At Earlington, Ky., the temperature reached 100° every day of the 10 except one, and on that day it was 99°.

PRECIPITATION.

Precipitation averaged near normal over much of the district. There was a considerable excess, however, in the western portions of Pennsylvania and Maryland, where the monthly amounts ranged from 6.0 to 11.5 inches, due to the heavy rains which occurred in the early part of the month; also there were a few limited areas, notably in central Illinois, in western Kentucky, the Licking Valley, southeastern Ohio, and extreme western West Virginia, where there was a marked deficiency, the monthly amounts being 2 inches or less. Over the rest of the district monthly amounts ranged generally between 3 and 5 inches.

Heavy rains fell over the northwestern portion of the district during the first week of the month, but generally over the rest of the district rains were decidedly scattered, local and for the most part light during the entire first two weeks, and, except in Ohio, where the rains were more frequent and copious, only an occasional shower here and there gave rainfall in any adequate amount. During the last half of the month there were three periods with general and abundant rain, viz, 14th-18th, 21st-23d, and the 26th.

A number of excessive 24-hour rainfalls occurred at various times during the month. Those worthy of special note were: 1st-2d, 3.42 inches at Green Hill and

3.50 inches at Millport, Ohio; 23d, 4.67 inches at Rock House, N. C., and on the 25th, 3.96 inches at Princeton, Ind.

STORMS OF THE 1ST-2D IN THE UPPER OHIO VALLEY.

During the night of the 1st-2d, severe storms swept over a portion of western Pennsylvania, the Panhandle of West Virginia, and several counties in eastern Ohio, attended by high winds, torrential downpours of rain, and terrific discharges of lightning. As a result of the excessive rainfall small streams soon became raging torrents, causing vast destruction to property and stock, and the drowning of about 40 people. Of these, 18 perished at Colliers and 1 at Wellsburg, W. Va., 6 at Cherry Valley, 4 at Burgettstown, 3 at Avella, 3 at Canonsburg, and 1 at Woodrow, Pa., while 1 person was killed by lightning at Pittsburgh, Pa., and another fatally injured at Zoar, Ohio. Salineville, Ohio, suffered severely from the storm, the streets being covered with débris, but fortunately no loss of life occurred, although there were many narrow escapes. The value of property destroyed by lightning and flood is estimated to be between one and two millions of dollars.

The Chartiers Valley, from Washington, Pa., to McKees Rock, Pa., where the little stream empties into the Ohio River, was one stretch of devastation, thousands of acres of growing corn being destroyed and thousands of tons of hay carried away by the torrent. The damage to railroads and manufacturing plants was heavy throughout the inflicted district. A train ran into a washout near Rockdale, Pa., and plunged over a high embankment into the flooded creek. The fireman was killed and the

engineer and several other trainmen had narrow escapes, and freight valued at half a million dollars was destroyed. Prompt action on the part of the Buffalo-Pittsburgh Coal Co. in spreading warnings saved the lives of several hundred people at Cherry Valley and Canonsburg, Pa. This disaster was followed by a second flood in portions of Allegheny and Washington Counties, Pa., from a series of cloudbursts on the 3d, and which also did great damage to property and railroads and caused the loss of one human life.

MISCELLANEOUS.

September 7.—A factory at Springfield, Ohio, was struck by lightning and set on fire, causing a loss of \$60,000.

September 17.—A severe storm near Adairville, Ky., destroyed several tobacco barns, Moses Fisher being killed by the collapse of one of the barns. Wind, rain, and hailstorms did great damage to corn and tobacco crops and buildings in Todd County, Ky. A tornado swept over the northeastern corner of Montgomery County, Tenn., and the southeastern corner of Todd County, Ky., causing the destruction of 5 residences and 6 tobacco barns. The loss in growing crops, poultry, and live stock is estimated at more than \$75,000.

September 18.—Rain and hailstorms did much damage to crops, especially tobacco, in Henderson and Daviess Counties, Ky. Near Owensboro, Miss Myrtle Johnson was killed and her brother severely shocked by lightning.

September 28.—Two men were struck by lightning near Granville, Jackson County, Tenn., one being killed and the other severely shocked.

TABLE 1.—Climatological data for September, 1912. District No. 3, Ohio Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of overcast days.		
<i>New York.</i>																				
Allegany.	Cattaraugus.	1,441	6	63.2		91	10	31	30	35	3.91	+ 1.87	0.60	0	14	7	9	14	nw.	C. E. Whitney.
Bolivar.	Allegany.	1,800	18	63.0	+ 3.8	90	10	29	30	37	4.94	+ 1.87	1.20	0	12	9	10	11	w.	Dr. C. F. Hoffman.
Olean.	Cattaraugus.	1,402	4							5.23		1.92	0		12				w.	John W. Alles.
<i>Pennsylvania.</i>																				
Aleppo.	Green.	1,135	11	67.0	+ 1.9	91	10†	29	30	40	4.35	+ 1.93	2.25	0	7	17	2	11	sw.	J. S. Hinerman.
Baldwin.	Butler.	1,404	6	65.0		89	10	33	30†	32	4.06		1.10	0	10	13	10	7	sw.	S. H. Templeton.
Beaver Dam.	Beaver.	674	18								5.20	+ 2.79	3.04	0	11	5	7	18	sw.	U. S. Engineer.
Brookville.	Jefferson.	1,173	21	63.0		94	11	30	29†	43	3.97	+ 0.70	1.01	0	12				w.	H. C. Bartholomew.
Claysville.	Washington.	1,127	8	69.2		93	10	30	30	44	3.87		0.68	0	12	20	6	4	w.	E. T. Buchanan.
Confluence.	Somerset.	1,352	28								7.11	+ 4.25	2.05	0	14	10	4	16	w.	Grant Pyle.
Franklin.	Venango.	955	38	66.4	+ 2.7	95	11	33	30	33	4.04	+ 0.32	0.83	0	15	17	0	13	sw.	F. E. Dixon.
Freeport.	Armstrong.	772	39								4.05	+ 1.35	1.57	0	12	7	6	17		Mrs. Anna R. Burtner.
Greensboro.	Green.	768	23								6.66	+ 3.82	2.10	0	13				sw.	James G. Cramer.
Greenville.	Mercer.	950	16	65.4	+ 3.4	94	10	32	30	42	3.86	+ 0.59	0.85	0	11	21	5	4	nw.	A. M. Orr.
Indiana.	Indiana.	1,350	15	67.2	+ 3.0	93	10	33	30	35	8.02	+ 4.46	1.88	0	15	14	11	5	s.	R. W. Wehrle.
Johnstown.	Cambria.	1,184	24	68.6	+ 3.2	94	10	38	30	35	6.12	+ 2.87	1.78	0	11	11	16	3	s.	E. C. Lorentz.
Lock No. 4.	Washington.	718	26								5.52	+ 2.82	1.38	0	11	4	12	14	s.	R. T. McGowan.
Lycippus.	Westmoreland.	1,420	20	66.3	- 0.5	83	10	37	30	24	5.87	+ 4.23	2.19	0	12					Murray Forbes.
Pittsburgh.	Allegheny.	842	42	68.6	+ 2.5	90	10	38	30	28	2.80	+ 0.41	1.39	0	13	14	8	8	w.	U. S. Weather Bureau.
Saegerstown.	Crawford.	1,116	21	64.4	+ 2.5	89	10†	31	30	35	4.47	- 1.39	1.20	0	15	7	7	16	nw.	J. G. Apple.
Sharon.	Mercer.	940	1	67.4		92	10	33	30	35	2.87		0.96	0	10	18	0	12	sw.	Norman S. Powell.
Skidmore.	Lawrence.	1,000	8	65.2		92	10	31	30	39	4.45		1.25	0	7	20	3	7	s.	W. H. Stoner.
Somerset.	Somerset.	2,250	56	64.4	+ 3.8	86	5	29	30	37	11.43	+ 8.32	1.51	0	15	2	18	10	nw.	W. M. Schrock.
Uniontown.	Fayette.	999	24	68.4	+ 2.4	90	2†	39	30†	35	6.41	+ 3.32	1.05	0	13	15	8	7	w.	William Hunt.
Warren.	Warren.	1,137	23	64.7	+ 2.8	87	10	30	30	33	5.38	+ 1.60	2.00	0	9	10	1	19	sw.	Anna Simpson.
<i>Maryland.</i>																				
Deer Park.	Garrett.	2,457	18	62.8	+ 2.5	86	14	30	28†	41	7.10	+ 4.81	3.55	0	10				s.	S. P. Specht.
Grantsville.	do.	2,351	18	64.4	+ 2.7	89	10	32	28	37	5.54	+ 3.13	1.20	0	11				e.	J. S. Miller.
Oakland.	do.	2,461	12	64.2	+ 2.8	88	5†	30*	30	39*	5.81	+ 3.03	1.79	0	12	13	12	5		R. E. Weber.
<i>West Virginia.</i>																				
Bancroft.	Putnam.	574	10	70.7	+ 0.8	92	13	42	27	38	4.09	+ 1.42	0.80	0	7	16	0	14	w.	R. E. Dent.
Beckley.	Raleigh.	2,440	12	64.6	+ 0.9	87	2†	38	27†	35	4.32	+ 2.27	1.88	0	4	23	1	6	w.	John A. Ewart.
Bens Run.	Pleasants.	622	10	70.4	+ 1.9	95	10	42	27	35	1.63	- 0.75	0.55	0	5	23	4	3		J. D. Riggs.
Bluefield.	Mercer.	2,563	17	68.1	+ 1.0	89	9	42	29	32	2.79	- 0.10	1.00	0	8	17	5	8		Norfolk & Western Ry.
Buckhannon.	Upshur.	1,472	21	66.3	+ 1.4	87	1†	38	28†	40	4.63	+ 1.55	1.35	0	8	25	1	4		H. A. Darnall.
Cairo.	Ritchie.	667	10	71.0	+ 3.3	96	8	36	30	46	1.83	- 0.63	0.82	0	6	2	21	7	sw.	Van A. Zevely.
Central Station.	Doddridge.	900	11	71.6		91	1†	31	30	41	4.06	+ 1.05	0						w.	G. W. Sherwood.
Charleston.	Kanawha.	598	24	72.0	+ 1.1	91	1	43	28†	28	2.41	- 0.45	0.79	0	7	20	5	5	w.	R. C. Hewes.
Creston.	Wirt.	612	11	69.6	+ 1.8	92	1†	39	30	37	2.47	- 0.01	0.88	0	9	15	8	7	sw.	J. M. Reed.
Cuba.	Jackson.	544	10	69.2	+ 1.9	94	9†	33	30	41	1.93	- 0.23	0.86	0	5	14	15	1	w.	C. T. Perry.
Doane.	Wayne.	6	7.0			98	8	42	29†	39	1.97		0.68	0	6	20	6	4		L. A. Smith.
Elkhorn.	McDowell.	1,933	19	67.6	+ 1.1	87	7	40	26	35	3.65	+ 0.85	1.35	0	7	20	5	5		J. A. Lincoln.
Elkins.	Randolph.	1,940	13	66.9	+ 4.9	90	10	36	30	41	4.18	+ 1.31	1.56	0	15	14	8	8	nw.	J. J. Lincoln.
Fairmont.	Marion.	879	18	70.8		97	10	40	30	43	4.41	+ 1.82	1.48	0	13	22	2	2	w.	U. S. Weather Bureau.
Glenville.	Gilmer.	738	22	72.2	+ 4.6	98	7	39	30	46	4.26	+ 0.91	1.56	0	8	24	4	2	w.	F. P. Hall.
Grafton.	Taylor.	985	18	70.4	+ 3.8	96	10	40	28	43	5.02	+ 2.18	1.42	0	13	18	6	6	w.	Joe N. Craddock.
Green Sulphur Springs.	Summers.	1,600	16	68.2	+ 1.8	93	7†	40	28†	40	2.46	+ 0.29	1.42	0	8	11	12	7	w.	Joseph Gerken.
Hinton.	do.	1,400	21	71.6	+ 3.3	96	10	44	27	36	3.16	+ 0.18	1.12	0	8	13	2	15	sw.	Arthur George.
Holcomb.	Nicholas.	1	68.0	+ 1.6	92	10*	39	28	39	45	4.54		0	7	18	5	7			J. B. Lavender, C. E. E.
Huntington.	Cabell.	510	17	69.2	+ 0.2	90	2†	44	29†	29	3.04	+ 0.77	1.02	0	6	19	0	11	w.	R. E. Ferguson.
Lewisburg.	Greenbrier.	2,200	11	66.8	+ 1.8	88	7†	40	28	35	4.03	+ 1.32	2.29	0	5	23	5	2		L. H. Hutchinson.
Logan.	Logan.	665	10	71.8	+ 2.4	92	1	46	29	30	2.60	- 0.63	1.10	0	9	23	5	2	se.	Geo. T. Argabrite.
Lost Creek.	Harrison.	1,033	15	67.0	+ 1.4	92	9†	33	30	43	4.07	+ 1.09	1.60	0	6	22	5	3	w.	Dr. J. E. McDonald.
Madison.	Boone.	704	8	69.7		92	1†	43	30	39	3.11		1.20	0	9	19 ^b	7 ^b	2 ^b		Allen Smith.
Mannington.	Marion.	967	11	67.5	+ 1.2	90	1†	34	30	38	5.57	+ 1.17	1.53	0	15	20	2	8	sw.	S. E. Bradley.
Marlinton.	Pocahontas.	2,169	17	65.8	+ 3.0	90	10	36	30	38	4.56	+ 1.57	2.62	0	7	14	8	4		Jas. A. Morgan.
Martinton.	Monongalia.	1,250	36	69.6	+ 1.5	94	10	46	30	34	3.20	+ 0.09	1.25	0	9	11	15	4	s.	C. J. McCarty.
Moundsville.	Marshall.	640	10	71.1	+ 3.4	95	2†	39	28†	41	2.71	+ 0.14	0.83	0	8	20	1	9	sw.	Horace Atwood.
New Cumberland.	Hancock.	987	14	66.7	+ 0.8	94	1	35	28†	35	1.13	- 1.55	1.00	0	6	12	5	13	s.	M. L. Brown.
New Martinsville.	Hancock.	634	18	71.4	+ 2.5	97	10	39	30	38	2.80	+ 0.17	0.90	0	4	20	7	3	s.	Frank S. Evans.
Nuttallburg.	Fayette.	2,252	18	68.2		84	2	40	28	33	3.34	+ 0.91	1.87	0	4	15	4	2		Wm. Ankrum.
Parkersburg.	Wood.	638	25	70.2	+ 4.2	93	10	41	30	33	1.60	- 1.12	0.60	0	9	18	5	7	n.	Miss Donna Tully.
Parsons.	Tucker.	1,662	12	66.6	+ 2.9	92	10	40	37	36	5.61	+ 2.56	1.95	0	10	17	11	2	w.	U. S. Weather Bureau.
Philipps.	Barbour.	1,192	18	68.6	+ 2.9	92	10	38	30	42	6.64									

TABLE 1.—Climatological data for September, 1912. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Date.	Highst.	Lowst.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Ohio—Continued.																				
Camp Dennison.	Hamilton.	570	19	69.3	+ 0.1	96	10	34	30	38	2.56	+ 0.61	0.75	0	6	17	10	3	n.	Henry F. Pinkvoss.
Canal Dover.	Tuscarawas.	884	19	66.7	+ 2.7	92	1	33	30	34	1.92	- 0.72	0.95	0	6	12	14	4	sw.	Ed. S. Slingluff.
Canton.	Stark.	1,089	29	66.5	+ 2.5	94	10	35	30	37	3.30	+ 0.45	1.13	0	12	17	5	8	sw.	Carl H. Meyer.
Cardington.	Morrow.	1,010	17	69.0	+ 3.7	99 ^b	5	31 ^b	30	39 ^b	2.39	- 0.85	1.39	0	7	21	0	9	sw.	J. W. Shaw.
Chillicothe.	Ross.	630	9								1.34		0.95	0	3					Marion Mackey.
Cincinnati.	Hamilton.	628	41	70.9	+ 1.9	95	10	43	30	30	1.95	- 0.36	0.81	0	6	14	8	8	ne.	U. S. Weather Bureau.
Circleville.	Pickaway.	694	24	68.8	+ 0.8	96	1†	35	30	40	2.73	+ 0.45	1.37	0	10	19	7	10	s.	Dr. H. R. Clarke.
Clarington.	Monroe.	600	9								1.05		0.60	0	7	18	5	5	sw.	Col. S. Tschaapatt.
Columbus.	Franklin.	918	34	68.0	+ 2.1	94	10	33	30	23	2.83	+ 0.31	1.11	0	8	15	8	7	sw.	U. S. Weather Bureau.
Coshocton.	Coshocton.	770	3								3.76		0.98	0	10					Mrs. Ada Jeffries.
Dayton (1).	Montgomery.	899	68.3	+ 1.5	93	10	38	30	29	2.16	- 0.34	1.19	0	5	10	11	9	n.	U. S. Weather Bureau.	
Dayton (2).	do.	790	31	68.4	+ 1.0	96	9†	32	30	26	2.41	- 0.16	1.24	0	5					Mrs. Edith L. Boyer.
Delaware.	Delaware.	896	15	67.2	+ 1.1	95	9†	30	30	40	3.99	+ 1.14	2.40	0	6	18	10	2	nw.	De Witt H. Leas.
Demos.	Belmont.	1,325	24	68.5	+ 2.7	94	7	36	30	40	2.18	+ 0.68	0.71	0	8	22	4	4	s.	J. T. Dysart.
Dennison.	Tuscarawas.	846	2	67.4		97	9	35	27†	40	2.13		1.23	0	9	17	10	3	n.	Water Supply Co.
Frankfort.	Ross.	745	20	69.0	+ 2.0	95	1†	35	30	34	4.57	+ 2.28	1.35	0	6	17	6	7	s.	O. A. Cory.
Gallipolis.	Gallia.	580									1.44		0.75	0	5					Samuel F. Neal.
Garrettsville.	Portage.	1,005	28	65.0	+ 3.5	93	10	32	30	36	3.49	+ 0.04	1.15	0	13	11	13	6	nw.	S. M. Luther.
Granville.	Licking.	960	30	67.2	+ 1.8	94	1†	33	30	37	5.30	+ 2.41	2.36	0	9	19	1	10	sw.	Dr. L. E. Davis.
Gratiot.	do.	1,000	23	66.8	+ 1.3	89	1†	34	30	36	2.16	+ 0.60	0.90	0	9	15	12	3	w.	W. B. Longstreth.
Green.	Adams.	500	19	70.4	+ 1.7	94	9	39	27	39	2.47	+ 0.03	1.12	0	4	24	3	3	sw.	W. F. Kenyon.
Green Hill.	Columbiana.	1,135	19	64.6	+ 1.3	90	10	32	30	37	5.19	+ 2.19	3.42	0	11	12	15	3	sw.	Jos. E. Bentley.
Greenville.	Darke.	1,060	26	66.2	+ 1.6	90	1†	33	30	29	2.33	+ 0.29	0.78	0	7	13	7	10	e.	Geo. A. Katzenberger.
Hamilton.	Butler.	601									3.07		1.30	0	8	17	7	6		Earl W. Stout.
Haydenville.	Hocking.	700		67.7 ^c		96 ^c	1†	36 ^c	28 ^c	44 ^c	2.86		1.60	0	8				sw.	H. W. Stiers.
Hillsboro.	Highland.	1,063	33	69.0	+ 0.8	95	2†	36	30	34	3.78		1.12	0	5	9	17	4	sw.	Carey H. Roush.
Ironton.	Lawrence.	575	29	70.8	+ 3.1	96	1	39	27†	40	1.30	- 1.39	0.71	0	7	21	2	7	sw.	James Bull.
Kenton.	Hardin.	1,015	20	67.0 ^b	+ 0.2	94 ^b	10	29 ^b	27	39 ^b	4.09	+ 1.84	1.64	0	5					N. S. Martin.
Killbuck.	Holmes.	1,087	19	66.3	+ 1.5	94	10	33	30	37	4.15	+ 1.41	1.25	0	9	24	3	3	e.	Lloyd C. Schonauer.
Kings Mills.	Warren.	640									0.67		0.67	0	8	22	1	7	ne.	Frank M. See.
Lancaster.	Fairfield.	898	17	67.5	+ 1.1	92	2	36	30	31	3.32	+ 1.04	1.22	0	6	20	3	7	sw.	R. L. Renshaw.
McConnelsville.	Morgan.	710	28	67.4	+ 0.9	92	7	35	30	36	2.23	- 0.61	0.89	0	9	14	7	8	sw.	C. H. Morris.
Marietta.	Washington.	627	92	69.5	+ 4.0	92	2†	37	30	34	1.99	- 1.15	0.71	0	10	14	11	5	n.	Prof. T. D. Biscoe.
Marion.	Marion.	980	34	68.0	+ 1.3	95	9	30	30	40	2.90	+ 0.14	1.18	0	6	10	14	6	sw.	Dr. E. H. Raffensperger.
Mifflordton.	Knox.	1,200	20	66.9	+ 1.9	96	9	31	30	43	2.08	- 0.59	0.59	0	5	20	8	2	sw.	L. H. Burgess.
Milligan.	Perry.	875	19	66.9	+ 0.7	92	1†	33	27†	41	3.75	+ 1.54	1.76	0	9	15	10	5	sw.	V. C. Eveland.
Millport.	Columbiana.	1,145	19	65.6	+ 1.9	90	10	32	30	36	5.91	+ 2.50	3.50	0	9	11	15	4	sw.	G. F. Copeland.
Nellie.	Coshocton.	850	12	66.6	+ 1.2	93	9	33	30	42	2.70	+ 0.16	0.90	0	6	12	9	9	sw.	Ethel L. Gammertsfelder.
New Alexandria.	Jefferson.	1,050	27	70.2	+ 4.8	98	1	35	27†	35	4.74	+ 2.07	1.50	0	6	15	7	8	s.	Mrs. Mary K. Pennell.
New Berlin.	Stark.	1,100	19	65.6	+ 0.3	93	10	33	30	36	3.97	+ 1.36	1.30	0	10	20	7	3	n.	Clayton Holl.
New Waterford.	Columbiana.	1,053	17	65.6	+ 1.8	91 ^a	10	34	30	33 ^a	4.72	+ 2.30	1.80	0	7	17	10	3	sw.	Sam. C. Scott.
O. S. University.	Franklin.	757	29	67.8	+ 2.5	93	10	32	30	34	2.13	- 0.45	1.19	0	5	17	9	4	s.	Prof. H. C. Lord.
Oregonia.	Warren.	1,015	20	67.4	+ 1.2	92	6†	34	30	36	3.68	+ 0.89	1.09	0	8	13	12	5	ne.	E. H. Stephens.
Pataskala.	Licking.	645	1	67.9		92	7	30	33	31	3.13	+ 0.89	0.95	0	8	20	3	7	w.	J. N. Ridenour.
Peebles.	Adams.												1.17	0	8	20	3	7	w.	Ora O. Smalley.
Philo.	Muskingum.	1,018	17	68.0	+ 0.6	91	1†	34	30	34	3.85	+ 1.40	1.30	0	8	12	10	8	nw.	L. C. Burckholter.
Piqua.	Plattsburg.	847	2										1.44	0	9	18	3	9	sw.	James L. Roberts.
Plattsburg.	Clark.	1,130	19	67.2	+ 0.1	93	6	31	30	31	2.37	- 0.09	0.73	0	4	20	6	4	sw.	F. E. Stewart.
Portsmouth.	Scioto.	527	81	68.6	+ 0.8	92	1†	38	30	33	2.98	+ 0.29	0.84	0	9	17	1	12	sw.	Dr. H. A. Schirrmann.
Prospect.	Marion.	909	2																	Nell J. Gast.
Shenandoah.	Richland.	1,100	20																	T. B. Arnett.
Sidney.	Shelby.	985	29	67.8	+ 1.8	95	9†	32	30	37	2.82	- 0.20	0.92	0	5	20	5	5	sw.	Hamline B. Blake.
Somerset.	Perry.	1,050	13	68.2	+ 0.7	95	2	38	30	33	3.13	+ 0.89	0.95	0	6	20	6	4	s.	Miss M. W. C. Sheridan.
Springfield.	Clark.	980	18								3.08	- 0.10	1.25	0	7	14	14	2	sw.	W. A. Webster.
Summerfield.	Noble.	1,187	6	67.4 ^b		93 ^b	10	32 ^b	30	41 ^b	2.35		0.54	0	9	12	13	5	s.	H. R. McClintock.
Syracuse.	Meigs.	583	1	71.8		96	7†	38	27	37	1.06	- 0.64	0.47	0	4	19	4	7	w.	Irving R. Carr.
Thurman.	Gallia.	696	19	70.6	+ 0.7	94	7†	38	27	37	1.06	- 0.12	1.29	0	6	18	10	2	sw.	D. D. Thomas.
Urbania.	Champaign.	1,031	44	67.4	+ 2.2	94	6	30	30	38	3.07	- 0.12	1.29	0	6	18	7	5	sw.	Prof. J. H. Williams.
Warren.	Trumbull.	900	23	67.0	+ 2.7	95	10	33	30	35	3.90	+ 0.73	0.86	0	10	23	7	5	sw.	M. D. McCorkle.
Waverly.	Pike.	500	29	67.9	+ 0.5	94	2†	35	30	39	1.98	- 0.50	1.05	0	9	12	1	17	n.	Dr. Peru Hutt.
Waynesville.	Warren.	700	27	67.2	+ 0.4	91	10	35	30	38	2.46	- 0.03	0.75	0	6	18	11	1	nw.	Charles Michener.
Youngstown.	Mahoning.	1,030	33	65.6	+ 1.9	93	10	30	30	39	4.41	+ 1.02	1.56	0	9	18	6	6	sw.	Experiment Station.
Zanesville.	Muskingum.	846	19								4.17	+ 1.29	1.07	0	11	20	3	7	s.	J. M. Dickey.
	Grant.	700	25								2.24	- 0.21	0.58	0	9	17	2	11	s.	S. G. Sprague.
Indiana.																				
Anderson.	Madison.	892	17	67.2	+ 0.4	93	10													

TABLE 1.—Climatological data for September, 1912. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Sky.	Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.								
<i>Indiana—Continued.</i>																						
Mauzy.	Rush.	980	32	67.6	+ 2.7	97	10	30	30	35	3.29	+ 0.40	1.17	0	7	14	10	6	sw.	Elwood Kirkwood.		
Monticello.	White.	674	2	68.8	0.0	96	10	34	30	34	2.16	- 0.35	0.80	0	6	17	6	7	se.	J. E. Loughry.		
Moores Hill.	Dearborn.	980	11	68.8	+ 0.3	96	7	42	27†	34	2.81	+ 1.55	1.21	0	6	24	3	3	w.	W. S. Bigney.		
Mount Vernon.	Posey.	410	26	71.0	+ 0.3	93	5†	30	30	39	4.30	+ 1.55	2.30	0	5	21	4	5	sw.	Guy B. Green.		
Nashville.	Brown.	66.2	8	69.2	+ 0.1	98	5†	34	30	40	3.53	- 0.55	1.10	0	5	7	13	10	w.	W. C. Goble.		
Paoli.	Orange.	611	15	69.2	+ 0.1	98	5†	34	30	40	4.81	+ 1.43	1.78	0	8	16	10	4	sw.	James A. Gillum.		
Princeton.	Gibson.	481	30	71.7	+ 3.0	100	10	38	27	37	5.21	+ 2.02	3.96	0	5	25	3	2	sw.	Albert Mills.		
Richmond.	Wayne.	972	27	66.0	+ 0.3	93	10	31	30	35	2.18	- 0.52	0.88	0	6	15	12	2	sw.	Walter Vossler.		
Rochester.	Fulton.	775	7	66.4	.....	90	1†	34	30	28	2.62	.....	0.56	0	9	15	11	4	.....	G. P. Keith.
Rockville.	Parke.	722	26	69.6	+ 2.5	98	6	31	30	38	3.44	- 1.57	0.78	0	6	11	14	5	se.	C. A. Lee.		
Rome.	Perry.	370	9	73.2	.....	101	5†	47	27†	41	3.14	.....	0.91	0	7	26	4	0	sw.	Adam Anspach.
Salamonia.	Jay.	950	7	66.0	.....	94	10	30	30	36	5.03	.....	1.51	0	8	11	13	3	sw.	Emmet S. Allen.
Salem.	Washington.	717	19	68.7	0.0	95	10	34	30	41	3.15	+ 0.52	0.95	0	7	14	13	3	sw.	Frank H. Park.		
Scottsburg.	Scott.	570	18	70.4	+ 0.7	97	10	37	30	37	3.75	+ 1.30	1.02	0	6	16	10	4	s.	J. Robt. Blair.		
Seymour.	Jackson.	610	25	69.0	+ 0.9	100	9	35	30	40	3.82	- 0.08	1.02	0	6	11	14	5	se.	Edgar G. Hodson.		
Shelbyville.	Shelby.	768	8	68.4	.....	96	9†	32	30	37	2.88	.....	1.19	0	6	12	17	1	sw.	Rev. G. Halleck Rowe.
Shoals.	Martin.	523	5	.....	.....	.....	.....	.....	.....	.....	4.41	.....	2.09	0	6	11	12	7	sw.	U. S. Weather Bureau.
Terre Haute.	Vigo.	498	22	69.1	- 0.3	94	6	39	30	27	2.39	- 0.39	0.74	0	7	11	12	2	s.	L. A. Culver, Jr.		
Veedersburg.	Fountain.	613	13	60.4	+ 1.0	98	7†	34	27	36	2.27	- 0.29	0.51	0	10	20	8	2	sw.	Miss Frederica Boerner.		
Vevay.	Switzerland.	525	31	71.6	+ 2.0	97	10	40	30	34	4.35	+ 2.00	2.50	0	7	14	9	9	sw.	Garrett V. List.		
Vincennes.	Knox.	431	20	71.2	+ 0.5	99	5†	40	30	32	5.70	+ 2.64	3.00	0	5	22	0	4	se.	Charles C. Feagans.		
Washington.	Daviess.	484	16	70.5	+ 1.0	97	10	39	30	33	3.60	+ 0.34	1.64	0	8	18	8	4	sw.	Clyde O. Laugher.		
Whitestown.	Boone.	529	4	66.0	.....	92	2†	33	30	36	3.55	.....	1.19	0	7	7	23	1	sw.	Rev. Albert A. Young.
Winona Lake.	Kosciusko.	865	5	67.0	.....	96	10	32	30	33	2.32	.....	0.95	0	7	6	23	1	sw.	D. W. Solliday.
Worthington.	Greene.	526	30	69.3	+ 2.1	95	5†	36	30	32	4.11	+ 1.15	1.13	0	8	12	15	3	sw.			
<i>Illinois.</i>																						
Albion.	Edwards.	531	21	70.6	+ 0.6	97	3†	40	30	31	4.96	+ 1.85	2.10	0	7	22	5	3	sw.	B. F. Michels.		
Casey.	Clark.	645	9	67.8	- 0.8	93	7	33	30	31	3.57	+ 0.45	1.42	0	5	16	8	5	sw.	William Chenoweth.		
Charleston.	Coles.	720	27	67.8	- 0.8	93	7	34	30	35	3.06	- 0.28	1.42	0	7	13	12	5	s.	Jacob B. Daisy.		
Danville.	Vermilion.	604	11	69.6	+ 1.8	97	5†	33	30	35	3.06	- 0.28	1.42	0	9	20	5	5	s.	J. J. Lemon.		
Equality.	Gallatin.	421	14	72.6	+ 0.4	101	4†	40*	27†	39	5.42	+ 2.17	2.94	0	5	17	11	2	n.	Dr. L. W. Gordon.		
Fairfield.	Wayne.	450	19	70.4	+ 0.1	99	6	36	27	37	3.53	+ 0.17	1.19	0	7	18	8	4	nw.	George A. Tromly.		
Flora.	Clay.	495	26	69.8	+ 1.6	97	5†	36	30	35	2.61	- 0.54	1.31	0	8	17	9	4	sw.	W. L. Hanna.		
Golconda.	Pope.	500	34	72.5	+ 0.8	100	5†	42	30	37	2.24	- 0.90	0.86	0	5	14	10	6	sw.	Dr. D. Lawrence.		
Hoopeson.	Vermilion.	715	10	67.2	+ 1.1	91	1	35	30	30	2.13	- 1.47	0.58	0	8	19	7	4	sw.	S. F. Hoskinson.		
McLeansboro.	Hamilton.	462	29	69.8	0	97	3	41	27	33	4.88	+ 1.73	2.08	0	7	22	3	5	sw.	Prof. W. C. Fairweather.		
Metropolis.	Massac.	346	1	.....	.....	.....	.....	.....	.....	.....	2.63	.....	0.95	0	7	21	4	5	sw.	Henry H. Humma.
Montrose.	Effingham.	599	2	68.4	.....	98	5†	32	30	35	2.22	.....	1.43	0	8	14	12	4	sw.	J. C. Spitler.
Mount Carmel.	Wabash.	424	11	69.8	- 0.4	95	3†	41	27†	31	5.24	+ 1.85	2.52	0	8	21	1	8	se.	Mrs. H. M. Phillips.		
New Burnside.	Johnson.	613	17	69.6	- 2.5	93	10	36	27†	44	3.50	+ 0.50	0.90	0	6	23	1	6	s.	Thomas H. McCabe.		
Newton.	Jasper.	481	1	.....	.....	.....	.....	.....	.....	.....	2.10	.....	1.26	0	6	16	12	2	se.	J. M. Hicks.
Olnay.	Richland.	486	25	.....	.....	.....	.....	.....	.....	.....	2.22	.....	1.43	0	8	14	12	4	sw.	John T. Ratcliff.
Palestine.	Crawford.	500	30	70.9	+ 3.1	98	5	40	27†	34	5.30	+ 1.90	1.57	0	9	21	6	3	s.	Duane Shaw.		
Paris.	Edgar.	600	19	67.7	- 1.0	94	1†	34	30	29	2.65	- 0.70	1.30	0	5	14	15	1	sw.	H. P. Twyman.		
Philo.	Champaign.	700	28	67.7	+ 1.7	97	6	30	30	38	3.26	- 1.85	0.51	0	4	17	9	4	se.	H. A. Burr.		
Rantoul.	do.	708	21	68.4	+ 1.6	98	5†	33	30	34	1.41	- 2.15	0.33	0	6	19	5	6	se.	William Breiner.		
Rileyville.	Saline.	400	15	.....	.....	.....	.....	.....	.....	.....	5.64	+ 2.17	3.44	0	6	23	0	7	n.	W. H. Thornberry.
Shawneetown.	Galatin.	307	2	.....	.....	.....	.....	.....	.....	.....	3.60	.....	2.05	0	6	18	7	3	sw.	Mrs. Mary O. Spivey.
Tuscola.	Douglas.	644	19	.....	.....	.....	.....	.....	.....	.....	1.72	- 1.73	0.94	0	8	11	15	4	sw.	Joseph O'Neal.
Urbana.	Champaign.	725	10	67.6	+ 1.3	95	10	35	30	29	1.76	- 1.31	0.55	0	6	10	17	3	.....	Prof. J. G. Mosier.	
<i>Kentucky.</i>																						
Alpha.	Clinton.	18	71.6	+ 0.9	90	1†	46	27†	30	4.47	+ 1.20	2.51	0	4	20	5	5	w.	W. W. Hicks.			
Anchorage.	Jefferson.	700	11	69.0	+ 0.1	95	5†	36	30	33	4.88	+ 2.11	1.81	0	9	17	11	2	sw.	C. E. Barrett.		
Bardstown.	Nelson.	637	15	72.9	+ 1.1	99	10	41	27	35	4.16	+ 1.47	1.40	0	6	22	1	7	se.	T. S. Talbott.		
Beattyville.	Lee.	650	8	69.6	.....	96	3	38	30	42	3.10	+ 0.32	1.20	0	7	14	4	12	e.	G. W. Cann.	
Beaver Dam.	Ohio.	441	9	72.3	+ 1.1	99	5	39	27	39	5.59	- 0.02	1.03	0	7	21	1	8	s.	W. T. Austin.		
Berea.	Madison.	1,070	11	71.5	+ 2.3	96	10	36	30	32	2.61	- 0.11	1.38	0	6	25	1	4	ne.	C. F. Rumold.		
Blandville.	Ballard.	445	31	72.0	+ 1.0	97	6	43	27†	32	2.79	- 0.19	1.05	0	10	15	12	3	ne.	E. W. Horr.		
Bowling Green.	Warren.	500	23	72.4	+ 0.4	100	10	40	27	40	2.54	- 0.52	1.02	0	6	22	1	7	s.	Mrs. L. G. Causey.		
Burnside.	Pulaski.	773	21	.....	.....	.....	.....	.....	.....	.....	3.61	+ 0.35	1.35	0	6	17	1	7	sw.	G. M. Estes.
Cahoun.	McLean.	397	9	72.9	+ 0.1	99	4†	40	27	36	1.89	- 0.69	0.78	0	7	9	20	1	e.	W. A. Taylor.		
Catlettsburg.	Boyd.	544	23	.....	.....	.....	.....	.....	.....	.....	1.86	- 0.61	0.80	0	9	21	1	7	sw.	Mrs. Mertie Bruns.
Earlington.	Hopkins.																					

TABLE 1.—*Climatological data for September, 1912. District No. 3—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Tennessee.																				
Ashwood.....	Maury.....	725	33	73.5	+ 2.8	97	8	46	20	39	3.21	- 0.45	1.00	0	5	13	11	6	s.	Mrs. Joseph W. Fleming.
Benton.....	Polk.....	880	27	75.5	+ 4.4	98	1	46	20	37	3.47	+ 0.44	1.20	0	6	9	19	2	n.	George L. Williams.
Birds Bridge.....	Greene.....	6									3.42		1.27	0	5	18	4	8	w.	David B. George.
Bluff City.....	Sullivan.....	15									3.89	+ 1.04	1.12	0	11	15	3	12	w.	John W. Fisher.
Byrdstown.....	Pickett.....	1,028	19	73.2	+ 2.8	93	4†	43	30	33	2.75	- 0.56	1.80	0	4	11	13	6	s.	John Lacy.
Carthage.....	Smith.....	500	23	75.4	+ 4.1	97	3†	44	30	35	2.00	- 1.23	0.81	0	6	19	0	11	s.	Earl C. Pickering.
Cedar Hill.....	Robertson.....	625	12	73.9	+ 1.1	100	1	40	30	42	3.56	+ 0.37	1.35	0	7	18	10	2	n.	J. Frank Ruffin.
Celina.....	Clay.....	494	9								4.31		1.42	0	7	11	1	18	s.	Charles M. Anderson.
Charleston.....	Bradley.....	709	15								4.16	+ 0.58	1.67	0	6	12	3	15	n.	John T. Weeks.
Chattanooga.....	Hamilton.....	808	33	74.7	+ 3.5	94	1	51	20	28	2.36	- 0.89	0.98	0	9	12	10	8	ne.	U. S. Weather Bureau.
Clarksville.....	Montgomery.....	500	49	72.6	+ 2.6	94	4	42	30	36	2.38	- 0.44	1.46	0	6	21	8	1	n.	Prof. James A. Lyon.
Clinton.....	Anderson.....	800	24								2.55	+ 0.04	0.76	0	6	17	0	13	n.	Hugh Evans.
Crossville.....	Cumberland.....	1,895	—	70.8*		91	9	43	46*	42	2.11			0	6	26	1	3	s.	J. E. Converse.
Dandridge.....	Jefferson.....	8									2.90		1.24	0	5	17	2	11	w.	James E. Swann.
Decatur.....	Meigs.....	850	16	74.9	+ 4.0	98	1†	44	20	39	2.74	- 0.97	1.41	0	7	18	10	2	sw.	J. Worth Lillard.
Dickson.....	Dickson.....	800	16	72.8	+ 1.3	95	8†	44	30	37	3.57	+ 1.12	1.08	0	7	10	12	2	s.	Nathan R. Sugg.
Dover.....	Stewart.....	500	17	73.3	+ 1.0	100	8	42	28	38	2.41	- 0.64	1.02	0	4	26	2	2	s.	Asa M. Tippit.
Dunlap.....	Sequatchie.....	726	3	74.8		98	4	44	20	41	3.15		1.80	0	7	14	13	3	e.	S. Bradford Boyd.
Elizabethhton.....	Carter.....	1,575	22								3.28	+ 0.61	2.20	0	11	20	20	8	s.	Charles Boyd.
Erasmus.....	Cumberland.....	1,850	15	69.0	+ 2.7	91	1†	37	20	43	6.35	+ 3.40	3.03	0	9	12	13	5	se.	Mrs. Sarah E. Ashley.
Florence.....	Rutherford.....	560	30	73.8	+ 2.5	93	8†	47	20	33	2.08	- 1.40	0.58	0	6	19	8	3	w.	Erastus P. Bell.
Franklin.....	Williamson.....	648	22	72.5	+ 1.2	93	8†	45	30	31	3.39	- 0.16	1.60	0	4	17	5	3	s.	Young M. Rizer.
Halls Hill.....	Rutherford.....	10									1.70		0.95	0	2	24	1	5	s.	Edward F. Wright.
Harriman.....	Roane.....	841	17																	
Hohenwald.....	Lewis.....	983	26	72.6	+ 2.8	95	1†	44	30	40	3.65	+ 0.53	1.75	0	10	15	13	2	nw.	Mrs. Mary Lutzelman.
Iron City.....	Lawrence.....	600	15	73.4	+ 1.5	95	1†	45	20	39	2.89	- 0.94	1.10	0	5	5	25	0	nw.	Capt. H. Paul Seavy.
Jefferson City.....	Jefferson.....	2																		Calvin C. Maddox.
Johnson City.....	Washington.....	1,620	1	71.8	+ 3.9	94	1	46	20	36	2.68	+ 0.11	0.93	0	7	24	2	4	nw.	Ward Crosby.
Johnsville.....	Humphreys.....	364	16	74.0	+ 1.8	100	1†	44	27	41	3.57	+ 0.35	1.57	0	6	14	12	4	nw.	Miss Sallie B. Mathews.
Kingston.....	Roane.....	21									3.67	+ 0.04	2.30	0	6	23	0	8	n.	Henry Crumbliss.
Knoxville.....	Knox.....	977	41	74.2	+ 4.8	94	3	51	20	30	5.05	+ 2.27	2.18	0	7	11	11	8	ne.	U. S. Weather Bureau.
Lebanon.....	Wilson.....	522	3	73.8		95	3†	40	20	44	2.81		1.00	0	6	15	3	12	n.	H. Logan Fields.
Lewisburg.....	Marshall.....	727	17	74.2	+ 2.7	96	1†	46	20	41	3.27	- 0.43	1.25	0	8	19	6	5	n.	Dr. Robert D. Crutcher.
Loudon.....	Loudon.....	816	9								3.33	- 0.33	1.66	0	4	21	2	7	e.	Robert W. Clark.
Lynnville.....	Giles.....	770	24	73.4	+ 2.4	92	4	45	30	31	3.01	- 0.95	0.91	0	5	16	14	0	s.	Col. James H. Burrow.
McGhee.....	Monroe.....	8									4.12		1.57	0	7	21	0	9	s.	Horace H. Stiles.
McMinnville.....	Warren.....	1,011	28	75.0	+ 5.2	98	4†	44	20	43	5.27	+ 2.04	2.35	0	6	22	3	5	s.	Mrs. Sam T. Broyles.
Maryville.....	Blount.....	1,050	16																	Edward E. Barry.
Mountain City.....	Johnson.....	2,486	15	67.0	+ 3.6	85	1	40	20†	38	3.94	+ 0.82	1.29	0	7	18	7	5	ne.	U. S. Weather Bureau.
Nashville.....	Davidson.....	654	41	73.9	+ 2.4	95	8	48	30	33	2.46	- 1.22	0.86	0	8	15	9	6	ne.	Dr. Charles T. Burnett.
Newport.....	Cocke.....	1,280	22	73.2*	+ 3.6	91	15	48	20	30	3.50	+ 1.13	1.44	0	8	9	3	13	s.	Burl W. Buttram.
New River.....	Scott.....	1,215	5								2.44		0.97	0	4	21	1	3	n.	Oliver C. Kirksey.
Palmetto.....	Bedford.....	779	19	74.3	+ 2.0	96	4†	46	30	32	4.67	+ 1.01	1.80	0	7	14	10	6	ne.	Miss Carrie Cash.
Perryville.....	Decatur.....	357	15	73.5		96	7	46	27†	36	3.10	+ 0.41	1.72	0	5	21	2	7	e.	Fred Beal.
Pineywood.....	Hickman.....	5																		Samuel G. Wilson.
Rogersville.....	Hawkins.....	1,159	27	73.4	+ 4.6	94	1†	47	20	36	3.68	+ 0.95	1.75	0	6	21	4	5	n.	W. H. Carrington.
Rugby.....	Morgan.....	1,410	24	70.6	+ 3.3	94	7	39	20	41	3.81	+ 0.22	2.30	0	6	7	16	7	ne.	Herbert O. Eckel.
Savannah.....	Hardin.....	442	28	75.1	+ 3.0	97	8	47	27†	38	4.12	+ 0.89	1.75	0	6	21	7	2	n.	University of the South.
Sevierville.....	Sevier.....	6		74.4		93	1	49	21	36	3.39		1.20	0	7	5	11	14	s.	Ernest H. Hull.
Sevancee.....	Franklin.....	2,000	16	70.9	+ 1.4	89	2†	49	27†	28	4.06	+ 0.90	0	0	14	11	5	5	w.	Hudnall A. Boden.
Sparta.....	White.....	920	6	73.0		94	7†	45	30	36	2.13		1.25	0	5	14	10	6	n.	J. Caloway Carr.
Springville.....	Henry.....	377	9	72.2	+ 0.1	98	5†	38	27	41	1.82	- 1.68	1.10	0	8	21	8	8	ne.	Reuben T. Moore.
Tazewell.....	Claiborne.....	1,350	15	71.6		94	4†	43	30	39	3.50	+ 0.10	1.05	0	8	19	2	9	s.	John K. Roberts.
Tullahoma.....	Coffee.....	1,075	24	73.0	+ 3.1	94	4†	45	20	35	5.41	+ 2.27	3.18	0	6	12	14	4	sw.	Harry C. Boyd.
Walling.....	White.....	909	9								3.65		2.00	0	7	18	4	8	e.	William R. Wilson.
Waynesboro.....	Wayne.....	753	26	73.2	+ 3.1	95	4†	45	20	38	3.61	+ 0.24	1.64	0	7	4	20	6	n.	James G. Elizer.
Wildersville.....	Henderson.....	400	15			97	4†	45	30	32	2.86	+ 0.05	1.00	0	6	13	16	1	s.	R. A. Kimzey.
Worsham.....	Summer.....	550	11								5.23	+ 2.25	2.00	0	9	19	4	7	w.	
Yukon.....	Lincoln.....	850	15	73.0	+ 0.4	91	4†	45	30	28	5.68	+ 2.29	4.13	0	5	16	9	5	w.	
Alabama.																				
Bridgeton.....	Jackson.....	660	12								4.58	+ 1.72	1.55	0	6					R. L. Moore.
Decatur.....	Morgan.....	573	30	75.1	+ 2.3	93	1†	51	20	35	3.26	+ 0.32	3.00	0	4					E. A. Carriger.
Florence.....	Lauderdale.....	563	28	72.6	+ 0.6	98	4	50	20†	36	3.21	- 0.13	1.16	0	5					Robt. E. Coburn.
Guntersville.....	Marshall.....	580	2	76.2		97	3	53	30	28†	3.87		1.41	0	9					L. S. Long.
Madison.....	Madison.....	573	18																	J. B. Stevenson.
Riverton.....	Colbert.....	360	15	72.6	+ 0.5	96	4†	46	20†	41	3.50	+ 0.10	2.20	0	5					Ernie J. Moore.
Scottsboro.....	Jackson.....	652	29	74.5	+ 2.6	93	2	50	20	31†	3.99	+ 0.42	2.11	0	7	12	7	11	ne.	H. A. Caldwell.
Tuscumbia.....	Colbert.....	488	30	74.1	+ 1.1	96	4	52	30	29	2.34	- 0.75	1.00							

TABLE 1.—*Climatological data for September, 1912. District No. 3—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.		
<i>Virginia.</i>																	
Blacksburg.....	Montgomery.....	2,170	21	67.6	+ 3.4	90	1†	42	20†	36	7.87	+ 4.80	3.43	0	8	w.	Agr. Exp. Station.
Burkes Garden.....	Tazewell.....	3,250	17	61.8	+ 1.5	83	6	31	20	41	3.37	- 0.32	2.00	0	3	w.	C. H. Greever.
Elk Knob.....	Lee.....	3,243	9	70.2	.....	88	1†	45	30	24	4.56	.....	1.81	0	10	nw.	Henry Nicoll.
Ivanhoe.....	Wythe**.....	2,028	8	65.8	.....	86	1	44	20	26	4.66	.....	1.34	0	10	w.	Miss Alice G. Jewett.
Lebanon.....	Russel.....	2,131	2	63.1	.....	91	1†	27	20	56	4.50	.....	1.60	0	3	w.	E. M. Hunter.
Max Meadows.....	Wythe.....	2,028	16	67.2	+ 1.8	90	1†	41	20	41	4.29	+ 1.27	2.05	0	4	e.	James M. Graham.
Mandota.....	Washington.....	1,350	3	.....	.....	.....	.....	.....	.....	4.45	.....	1.45	0	9	.....	Frank M. Barker.	
Mountain Lake.....	Giles.....	4,348	2	61.4	.....	82	2†	38	28	28	6.55	.....	3.70	0	5	n.	H. E. Dorland.
Radford.....	Montgomery.....	1,773	3	.....	.....	.....	.....	.....	.....	6.14	.....	2.28	0	6	.....	Arthur Roberts.	
Speers Ferry.....	Scott.....	1,221	16	.....	.....	.....	.....	.....	.....	5.52	+ 1.84	1.71	0	7	.....	Miss L. E. Venable.	
Wytheville.....	Wythe.....	2,293	19	66.7	+ 3.1	88	7	42	20	35	4.84	+ 1.55	2.34	0	11	e.	U. S. Weather Bureau.

*, †, ‡, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

**Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

†Also on other dates.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for September, 1912. District No. 3, Ohio Valley.*

TABLE 2.—*Daily precipitation for September, 1912. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for September, 1912. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for September, 1912. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for September, 1912. District No. 3—Continued.*

Stations.	Watershed.	Day of month.																													Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
<i>Virginia.</i>																																		
Blacksburg.....	Kanawha.....		1. 20	.....				.49	.....																								7.87
Burkes Garden.....	Tennessee.....																																3.37	
Elk Knob.....	do.....							.10	T.																								4.56	
Ivanhoe |||.....	Kanawha.....							.01	T.																								4.66	
Lebanon.....	Tennessee.....							1. 40	.....																								4.50
Max Meadows.....	Kanawha.....								T.																								4.29	
Mendota |||.....	Tennessee.....							.60	.05	.....																							4.45
Mountain Lake.....	Kanawha.....																																	6.55
Radford |||.....	do.....							.10	.....																								6.14
Speers Ferry |||.....	Tennessee.....								1. 18	.....																							5.52
Wytheville.....	Wythe.....								.01	.....																							4.84

* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

||| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures at selected stations for September, 1912. District No. 3, Ohio Valley.

Date.	Pennsylvania.				West Virginia.								Ohio.								Canton.		Cincin- nati.		Columbus.		Dayton.	
	Greenville.		Pittsburgh.		Charleston.		Elkhorn.		Elkins.		Glenville.		Huntington.		Morgan- town.		Parkers- burg.		Wheeling.		Canton.		Cincin- nati.		Columbus.		Dayton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	92	62	89	68	91	70	86	63	87	71	93	69	89	70	86	71	93	71	94	64	92	68	92	76	91	71	91	73
2....	88	68	89	68	90	70	86	61	86	70	97	68	90	70	86	67	92	74	95	70	93	67	92	75	92	71	91	72
3....	86	68	86	71	90	70	86	60	86	63	94	66	90	70	87	67	88	71	86	70	84	69	88	73	83	70	84	68
4....	85	63	82	70	89	72	84	60	84	61	93	66	87	70	82	68	89	69	87	66	86	68	90	71	83	67	88	65
5....	91	63	86	69	88	68	83	63	88	57	95	63	87	69	88	65	89	70	90	60	90	67	90	70	89	68	91	66
6....	91	66	85	68	89	70	86	60	84	63	94	64	88	69	84	66	89	68	88	66	89	69	91	70	92	72	92	72
7....	85	58	88	67	90	71	87	61	87	61	98	66	89	71	88	64	92	68	93	67	86	65	95	71	88	66	92	67
8....	87	50	85	55	88	67	85	58	86	56	94	60	86	67	81	57	86	65	87	61	89	53	90	66	87	62	89	62
9....	89	55	86	61	90	63	86	58	88	53	96	60	88	65	88	67	91	60	86	59	92	59	93	69	90	63	93	64
10....	94	60	90	66	90	67	85	55	90	55	97	51	89	65	94	62	93	65	94	62	95	68	94	70	93	69	93	65
11....	79	62	81	63	88	64	85	56	85	56	95	55	88	63	86	65	91	64	88	64	91	67	83	61	85	61	85	61
12....	73	46	72	56	88	62	84	55	74	53	82	56	77	61	77	53	73	58	76	55	73	49	75	58	73	56	75	56
13....	80	41	82	54	83	56	77	54	76	50	87	51	80	53	85	51	85	54	84	50	82	45	86	56	82	55	81	54
14....	84	52	82	67	87	66	83	64	85	63	93	65	84	65	86	65	86	68	87	61	80	53	88	71	83	68	85	63
15....	82	54	84	69	86	69	83	70	85	60	84	63	78	57	86	70	80	70	85	66	82	53	70	67	79	68	80	68
16....	74	51	70	60	79	67	78	66	74	57	81	55	75	69	73	63	75	60	77	64	69	60	76	64	71	58	75	61
17....	78	36	79	53	82	62	82	54	82	55	89	54	79	56	84	54	82	53	82	54	78	46	83	59	80	54	78	56
18....	76	56	75	65	82	67	78	50	81	63	80	63	74	59	78	64	74	66	79	53	73	52	73	59	73	58	72	56
19....	70	51	69	57	77	62	81	48	69	47	76	55	70	57	70	61	70	54	72	56	68	49	67	52	66	51	65	49
20....	76	49	72	54	75	52	75	40	73	42	81	47	74	47	75	48	78	47	77	49	76	47	78	51	76	49	75	51
21....	80	46	80	57	80	52	76	47	82	41	89	64	79	51	83	50	83	50	83	50	83	47	85	57	82	54	81	54
22....	76	54	77	62	78	59	75	59	75	60	87	65	72	53	79	60	77	64	79	53	75	57	88	65	85	54	88	54
23....	66	60	67	60	75	63	71	57	64	59	84	59	74	54	71	60	71	62	88	60	88	53	71	54	67	54	70	50
24....	68	58	70	60	75	63	76	56	75	59	80	62	71	60	72	61	70	62	76	59	74	64	69	60	75	58	88	57
25....	80	54	80	60	82	60	78	59	80	59	89	60	80	57	83	57	82	59	80	56	85	59	83	57	82	58	82	58
Mns..	78.1	52.6	77.6	59.6	82.0	62.0	79.7	55.6	78.8	55.0	86.7	57.7	79.2	59.2	79.7	59.4	80.5	60.0	81.8	56.9	78.0	55.0	80.7	61.1	78.0	58.1	78.6	57.7

Date.	Ohio.				Indiana.								Kentucky.								Beatty- ville.		Bowling Green.		Earling- ton.		Greens- burg.		Lexing- ton.	
	Marion.		Waverly.		Butlerville.		Evansville.		Indian- apolis.		Kokomo.		Rockville.		Worthing- ton.		Philo, Ill.		Beatty- ville.		Bowling Green.		Earling- ton.		Greens- burg.		Lexing- ton.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1....	94	72	93	67	92	72	91	74	89	74	91	74	94	73	92	73	92	74	92	65	97	69	100	74	95	68	89	72		
2....	94	71	94	68	92	72	91	74	91	68	83	72	96	71	93	72	93	66	97	69	99	70	95	64	89	72				
3....	87	69	92	68	84	66	93	75	86	68	87	67	94	67	93	70	91	66	96	67	98	68	100	70	95	65	88	68		
4....	84	65	87	68	93	68	94	73	90	70	93	66	96	68	94	71	95	68	93	67	98	68	100	69	95	64	87	68		
5....	93	66	89	67	95	69	93	73	94	69	97	69	96	69	97	69	96	66	95	66	99	69	100	67	89	71				
6....	90	66	91	66	96	71	94	76	93	73	93	66	98	67	94	70	97	66	91	65	95	65	101	68	98	65	99	71		
7....	88	67	94	69	97	67	94	75	91	69	84	66	95	66	95	68	94	65	95	65	99	68	102	66	96	65	90	70		
8....	92	52	88	61	91	64	93	71	90	66	91	60	95	68	92	66	95	64	89	60	96	67	101	66	100	64	87	65		
9....	95	58	93	58	95	65	93	71	92	69	93	61	95	63	93	66	94	62	91	61	98	65	101	64	100	55	90	67		
10....	94	62	92	59	96	64	95	71	94	70	93	60	96	62	95	65	96	58	95	60	100	64	103	64	97	61	90	70		
11....	85	64	92	60	92	63	99	58	92	64	86	64	89	65	84	65	92	59	98	62	99	62	97	58	91	68	88	68		
12....	77	52	76	54	81	53	77	58	76	54	76	46	72	56	78	54	76	49	76	61	86	58	90	60	75	59	88	62		
13....	84	46	84	47	86	48	85	58	79	55	79	45	83	54	82	50	82	44	85	49	94	54	101	64	95	52	85	53		
14....	85	62	89	49	85	62	86	71	83	62	86	61	86	62	82</															

TABLE 3.—Maximum and minimum temperatures at selected stations for September, 1912. District No. 3—Continued.

Date.	Kentucky.						Tennessee.										Decatur, Ala. §§		Ashe- ville, N. C.	Virginia.								
	Louis- ville.		Maysville. §§		Williams- burg. §§		Chatta- nooga.		Johnson City. §§		Knoxville.		Nash- ville.		Palmetto.		Sparta.		Waynes- boro.				Blacks- burg.		Wythe- ville.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1....	93	76	96	69	94	67	94	70	94	65	93	72	93	75	95	78	91	67	92	69	93	73	87	63	90	62	87	67
2....	93	75	97	67	95	63	92	72	93	67	93	72	92	72	94	74	92	67	93	68	92	72	85	63	89	62	86	64
3....	94	69	95	67	94	67	94	70	92	65	94	70	93	71	93	68	91	68	93	66	92	70	86	63	90	59	85	62
4....	90	71	94	66	93	68	93	70	92	66	92	70	94	73	96	69	92	68	95	67	93	71	82	65	82	63	80	64
5....	93	73	95	65	91	67	88	70	89	66	90	69	92	72	95	70	91	67	93	67	93	72	82	67	81	64	80	64
6....	94	74	97	64	91	61	91	69	92	65	90	69	93	72	94	68	91	66	93	66	92	73	84	67	90	61	87	62
7....	94	75	97	66	94	67	92	70	90	63	92	70	94	70	96	67	94	66	94	65	92	72	83	62	89	60	88	61
8....	92	69	94	60	92	64	90	69	93	60	91	68	95	72	96	67	93	66	95	66	93	71	84	60	85	59	84	57
9....	95	70	97	64	93	65	90	70	93	61	92	68	94	71	94	66	94	64	95	65	93	71	83	59	88	55	86	57
10....	95	69	99	61	92	60	87	68	92	57	91	66	94	70	94	65	93	60	93	64	91	67	75	58	87	51	86	52
11....	94	68	97	59	90	60	89	70	92	62	90	69	93	66	93	66	92	60	92	63	90	69	81	63	88	52	84	55
12....	77	59	81	56	89	57	89	69	87	62	87	69	88	69	89	69	86	64	88	68	90	68	83	63	83	55	81	60
13....	86	56	90	49	92	56	86	69	87	63	89	65	90	62	93	61	90	61	90	59	92	65	71	64	69	61	76	59
14....	89	71	94	49	92	60	84	71	89	63	90	68	88	71	89	71	90	74	85	70	85	67	78	65	79	60	79	61
15....	86	71	84	67	88	65	88	71	89	71	87	72	87	70	87	74	85	72	88	69	88	73	82	67	84	63	83	68
16....	78	66	80	66	85	63	88	69	88	69	87	68	86	71	87	71	86	65	85	71	88	73	81	65	78	68	76	57
17....	85	63	90	55	92	60	88	64	93	57	91	63	87	64	87	63	89	60	87	71	90	68	81	60	82	54	80	54
18....	75	59	77	55	72	62	75	65	79	63	74	65	75	61	79	66	73	66	78	65	80	68	80	64	81	62	77	62
19....	70	52	73	47	76	55	76	57	79	63	76	56	72	53	76	52	74	55	74	49	68	56	73	54	72	56	71	49
20....	80	52	84	44	84	46	79	51	79	46	80	51	83	50	75	48	82	46	83	45	86	51	77	44	77	42	77	42
21....	82	57	91	45	70	47	81	57	78	49	84	54	80	57	79	60	84	52	82	59	80	53	75	48	77	43	75	44
22....	67	57	70	45	72	49	74	66	74	54	73	65	71	60	75	63	80	60	72	62	77	60	69	55	64	61	66	61
23....	74	51	65	56	75	50	78	65	73	54	77	63	72	56	74	58	77	60	74	52	78	62	72	59	63	62	58	62
24....	78	62	75	56	85	59	84	61	75	59	83	62	82	61	85	53	83	60	83	56	85	60	80	62	73	59	75	58
25....	85	62	90	55	87	60	85	63	84	56	85	62	84	63	85	62	86	58	85	60	87	61	82	57	80	56	80	51
26....	65	49	67	55	69	67	78	61	70	62	74	58	65	54	71	56	74	55	72	59	68	64	72	57	70	59	69	57
27....	65	44	69	37	70	50	73	58	69	54	70	56	72	50	73	49	73	52	74	48	74	56	70	59	74	53	60	49
28....	73	47	77	38	78	43	71	59	79	50	77	54	78	50	80	48	80	48	75	54	66	57	65	49	68	58	51	68
29....	63	47	67	41	80	49	75	61	71	50	72	58	71	56	71	60	72	60	80	48	74	55	68	49	69	48	68	49
30....	63	43	68	36	82	48	72	54	65	46	68	52	66	48	70	46	67	45	70	46	71	54	63	52	61	42	60	43
Mns.	82.3	61.9	85.0	55.3	85.2	58.5	84.1	65.3	84.0	59.6	84.4	64.1	84.1	63.7	85.6	63.0	84.8	61.1	85.3	61.0	85.0	65.2	77.7	60.1	78.8	56.5	76.8	56.6

*, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.